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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,227	03/11/2004	Charles E. Taylor	SHPR-01360USF	3455

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EXAMINER	
MARC, MCDIEUNEL	
ART UNIT	**PAPER NUMBER**
3661	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,227	TAYLOR ET AL.	
	Examiner	Art Unit	
	McDieunel Marc	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-37 are presented fore examination.

2. The rejection to claims 1-37 under 35 U.S.C. 103(a) as being unpatentable over **Allen *et al.*** (U.S. Pat. No. **5,995,884**) in view of **Roy *et al.*** (***Surface Sending and Classification for Efficient Mobile Robot Navigation, 1996***) is maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Allen *et al.*** (U.S. Pat. No. **5,995,884**) in view of **Roy *et al.*** (***Surface Sending and Classification for Efficient Mobile Robot Navigation, 1996***).

As per claims 1, 8, 15 and 27, Allen *et al.* teaches a system and an associated method of using a robot cleaner (see fig. 1, and fig. 3 element 9) comprising: providing a robot cleaner having a cleaning unit that includes a processor to control the robot cleaner (see col. 10, lines 55-61, see fig. 24 element 43and fig. 3), with the exception of a selected floor type cleaning mode the floor type cleaner modes includes a hard surface mode a soft surface mode.

However, Roy *et al.* teaches a surface sensing which covers the limitation of floor type and hard and soft surface mode (see Roy' s *et al.* Tables 1-3)

It would have been obvious to an ordinary skill in the art at the was made to consider and introduce into Allen' s *et al.* as the vacuum robot the surface sensing of Roy *et al.*, because this modification would have enhanced Allen' s *et al.* vacuum robot the robot can perform on any floor type mode hard or soft (see Roy' s *et al.* Tables 1-3), thereby improving the efficiency and the sensibility of the vacuum robot.

As per claims 2-7 and 9-14, Allen *et al.* teaches a vacuum, wherein in the hard surface mode the sweeper is off; the sweeper has a reduced speed, hard surface mode, carpet cleaning mode, soft surface mode is a carpet cleaning mode, selecting the floor type mode is done by pressing a button on the robot cleaner, wherein a remote unit is used to select between the floor type modes (such limitations above depends on the operator/owner' s choice and they don' t have any patentable weitht).

As per claim 16, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the supplemental cleaning unit connects to a connection port

(the line connecting elements 43 and 121 of figure 24 being considered as connection port).

As per claims 17-19, 28-30, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the connection port is on top of the robot cleaner (the connection port describe above being considered to be on top or the bottom or adjacent to a vacuum inlet by design choice).

As per claims 20 and 31, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the robot cleaner cleans in a serpentine pattern under its own control (see fig. 7 element 50, wherein the position of element 50 implies serpentine pattern).

As per claims 21 and 32, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the robot cleaner has a handle (see fig. 6, wherein element 46 being considered as handle).

As per claims 22 and 33, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the handle is part of the edge of the robot cleaner (see fig. 6, wherein element 46 being considered as handle which also considered as part of the edge).

As per claims 23 and 34, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the supplemental cleaning element is a hose attachment (see fig. 10 element 65 being considered as hose).

As per claims 24-25 and 35-36, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the supplemental cleaning element includes a brush (see fig. 10 element 66 being considered as hose/nozzle).

As per claims 26 and 37, Allen *et al.* teaches a system and an associated method of a cleaning method, wherein the supplemental cleaning element includes a crevice tool (see fig. 10 element 65 being considered as crevice tool).

Response to Arguments

6. As to the reference not teaching rotating a sweeper of a robot cleaner more in a soft surface mode than in a hard surface mode (see Allen's et al. col. 13, lines 44-48, particularly, "The purpose of the suspension system is to carry vehicle 1 over uneven terrain that might typically be found in home or office environments, for example: door thresholds, edges of carpeting, and other surface irregularities"), note that other surface stands for hard and soft as well.

As to the reference not teaching a processor that controls a robot cleaner... (Allen's et al. disclosure contains in "121 Local processor of onboard vehicle control system 41"), note that the onboard processor being used for map-generation, position estimation, and Local processor 121 operates the various actuators and motors on vehicle 1.

As to the robot not teaching the limitation of selected floor type (see Roy's et al. Tables 1-3 as described above).

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, combining the selected floor type of Roy et al. with the robot type of Allen et al. meet the modification requirement as a whole.

8. Applicant's arguments filed 12/19/2005 have been fully considered but they are not persuasive.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (571) 272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

McDieunel Marc
Examiner
Art Unit 3661

Monday, January 24, 2005
MM/

THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3600